

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A keyboard video mouse (KVM) switch for a plurality of local and remote computers to share a plurality of local manipulating devices, the KVM switch comprising:

a plurality of first interfaces adapted for connecting to the local manipulating devices to receive a plurality of local electrical signals, wherein local electrical signals from different first interfaces are for manipulating different local or remote computers;

a plurality of second interfaces adapted for connecting to the local computers;

a packet encoding device, which generates at least one network packet having a plurality of data sections, at least some data sections of a same network packet corresponding to the local electrical signals received by different ones of the first interfaces destined for different remote computers;

a network device adapted for communicating with a network device of another KVM switch using a network protocol in order to transmit the network packet and to receive a network packet transmitted from said another KVM switch;

a packet decoding device adapted for obtaining at least one remote electrical signal from the network packet of said another KVM switch; and

a switch device adapted for transmitting the local and remote electrical signals to the second interfaces and the packet encoding device according to a path selection setting.

2. (previously presented) The KVM switch of claim 1, wherein the network packet generated by the packet encoding device has a network overhead section.

3. (original) The KVM switch of claim 1, wherein each of the local electrical signals contains a keyboard signal and a mouse signal.

4. (previously presented) The KVM switch of claim 1, wherein the network device of the KVM switch contains:

a network interface chip (NIC), which connects to the packet encoding device and the packet decoding device; and

a network switch, which has a first port, a second port, and a third port; wherein the first port connects to the NIC, and one of the second port and the third port connects to said another KVM switch.

5. (previously presented) The KVM switch of claim 4, wherein the network device of the KVM switch contains a 2-way switch connecting to the second port for switching between an Ethernet and said another KVM switch.

6. (original) The KVM switch of claim 1, wherein the first interfaces contain a plurality of universal asynchronous receivers/transmitters (UART's) and a half-duplex communication processor.

7. (original) The KVM switch of claim 1, wherein the second interfaces contain a plurality of UART's and a half-duplex communication processor.

8. (original) The KVM switch of claim 1, wherein the packet encoding device contains a central processing unit (CPU).

9. (original) The KVM switch of claim 1, wherein the packet decoding device contains a CPU.

10. (original) The KVM switch of claim 1, wherein the switch device contains a CPU.

11. (currently amended) A computer switching method for a plurality of local and remote computers to share a plurality of local manipulating devices, the method comprising the steps of:
receiving a plurality of local electrical signals transmitted from the plurality of local manipulating devices, wherein local electrical signals from different local manipulating devices are for manipulating different local or remote computers;

distributing the local electrical signals in such a way that when path destinations of the local electrical signals are the local computers, the local electrical signals are transmitted to the

local computers while when the path destinations of the local electrical signals are the remote computers, at least one network packet having a plurality of data sections is generated, at least some data sections of a same network packet corresponding to the local electrical signals received from different ones of the plurality of local manipulating devices destined for different remote computers;

establishing communications among KVM switches using a network protocol in order to transmit the network packet to other KVM switches connected to the remote computers and to receive a network packet transmitted from another KVM switch;

obtaining at least one remote electrical signal from the network packet transmitted from said another KVM switch; and

transmitting the remote electrical signals to the local computers of their destinations.

12. (previously presented) The method of claim 11, wherein the network packet transmitted to other KVM switches has a network overhead section.

13. (original) The method of claim 11, wherein each of the local electrical signals contains a keyboard signal and a mouse signal.

14. (previously presented) The method of claim 11, wherein the local electrical signals are encoded in a same network packet when the path destinations of the local electrical signals are the remote computers connected to a same KVM switch.

15. (original) The method of claim 11, wherein the communication among the KVM switches is achieved using a network interface chip (NIC) and a network switch configured for each KVM switch.

16. (original) The method of claim 11, wherein the local electrical signals are received using a plurality of UART's and a half-duplex communication processor.

17. (previously presented) The method of claim 11, wherein the network packet transmitted to other KVM switches uses a CPU to perform encoding and decoding.

18. (original) The method of claim 11, wherein the paths of the local and remote electrical signals are switched by a CPU according to a path selection setting.